Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Advanced Television Systems	)	
and Their Impact Upon the	)	MM Docket No. 87-268
Existing Television	)	
Broadcast Service	)	

To: The Commission

COMMENTS OF UTC

Pursuant to Section 1.415 of the Federal Communications Commission's (FCC) Rules, UTC, The Telecommunications Association,[1] hereby submits its comments with respect to the Fourth Further Notice of Proposed Rulemaking And Third Notice of Inquiry (Fourth FNPRM/Third NOI), FCC 95-315, released August 9, 1995, in the above-captioned proceeding.[2]

I. Introduction

UTC is the national representative on communications matters for the nation's electric, gas, and water utilities, and natural gas pipelines. Approximately 2,000 utilities

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[1] UTC, The Telecommunications Association was formerly known as the Utilities Telecommunications Council.

[2] On October 11, 1995, the FCC issued a public notice, DA 95-2137, extending the date for the filing of comments to November 15, 1995. On November 15, the FCC was closed as a result of a general shutdown of the Federal Government related to a lapse in Federal spending authority. November 20, is the first business day after resolution of the spending shortfall.

and pipelines are members of UTC, ranging in size from large combination electric-gas-water utilities serving millions of customers to small, rural electric cooperatives and water districts serving only a few thousand customers. All utilities and pipelines rely on private land mobile radio systems to assure reliable and secure communications for the safe and efficient provision of essential public services. UTC is also the certified frequency coordinator for land mobile frequencies in the Power Radio Service. UTC will limit its comments to the issues surrounding the recovery of broadcast spectrum after the conversion to Advanced Television (ATV).

II. Background

The Fourth NPRM/Third NOI is part of the FCC's on-going proceeding to implement ATV in the U.S. The Commission plans to introduce ATV through a transitional conversion program in which broadcasters will maintain service to existing National Television System Committee (NTSC) receivers until ATV becomes the prevalent medium. To facilitate this conversion, broadcasters will be provided with a second 6 MHz UHF channel to allow them to operate both ATV and NTSC services simultaneously. At the end of the conversion period broadcasters will be required to relinquish one of the 6 MHz broadcast channels.

III. Broadcasters Should Relinquish Spectrum At The Earlier of A Date Certain or Attainment of Sufficient Digital Penetration Into the Marketplace

As the Commission notes, over 400 MHz of prime spectrum is allocated for television broadcasting, but on average, broadcasters only utilize 80 MHz per market. No other FCC regulated service comes close to this level of spectrum inefficiency. Such inefficiency is particularly egregious given the severe spectrum congestion in the bands below 2 GHz. The conversion to digital technology offers an opportunity to rectify this situation by condensing existing broadcasting licensees into a smaller overall bandwidth while at the same time improving signal quality. [3]

In order to foster this conversion and expedite the recovery of valuable spectrum, it is essential that the Commission establish an objective standard for the conversion to digital broadcasting. UTC supports the use of a dual standard in determining the end of the transition period that relies on the earlier of a date certain or the attainment of an objective benchmark of digital penetration: for example, the availability and use of digital receivers in 2/3 of US households. The benchmark should be pegged to digital receiver penetration since there are a number of sources other than broadcast conversion to ATV that will introduce digital technologies of SDTV-equivalent quality and capabilities. Between Direct Broadcast Satellite, cable, telephone and new wireless cable offerings, there will be a multitude of entities vying to offer consumers digital services.

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[3] Digital technologies allow individual broadcast channels to operate in closer proximity in the same geographic area and thereby occupy less spectrum overall.

Similarly, the advent of competing digital services will exert pressure on broadcasters to convert to ATV faster than was earlier anticipated. UTC therefore recommends that the date certain for the end of the transition period should be January 1, 2005.

To further expedite this process, the Commission should adopt a requirement that as of January 1, 1997, all new broadcast receivers shall be compatible with a digital transmission standard.[4] In this manner, consumers will naturally begin to make the shift to digital as they acquire new equipment. The Commission could adopt such a requirement pursuant to its authority under Section 303(s) of the Communications Act of 1934, as amended, 47 U.S.C. § 303(s), to "require that apparatus designed to receive television pictures broadcast simultaneously with sound be capable of adequately receiving all frequencies allocated by the Commission to television broadcasting when such apparatus is shipped in interstate commerce, or is imported from any foreign country into the United States, for sale or resale to the public." To the extent the Commission -- as well as the broadcast industry -- have announced an intention to begin digital broadcasting, it is incumbent on the Commission to ensure that all broadcast reception equipment be capable of receiving these digital transmissions.

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[4] A similar requirement was imposed upon the land mobile manufacturing community with regard to the type acceptance of new equipment in the FCC's "refarming" proceeding. Report and Order and Further Notice of Proposed Rule Making in PR Docket No. 92-235, FCC 95-255, released June 23, 1995.

In addition, the Commission has authority under Section 302a to adopt regulations "establishing minimum performance standards for home electronic equipment and systems to reduce their susceptibility to interference from radio frequency energy." To the extent the Commission is planning for the migration of television broadcasting from analog to digital, and the conversion of the former analog channels to other uses, the Commission should ensure the consumer equipment is not rendered useless or susceptible to interference because of these changes. By requiring that all television receivers include digital reception capability, the Commission will ensure that consumers will be able to enjoy uninterrupted access to television broadcast services when the conversion is completed.

UTC agrees with the Commission's assessment that spectrum recovered will be of greater utility if it is available nationwide in large contiguous blocks. UTC therefore supports the Commission's recommendation that it, and not the licensee, determine which 6 MHz channel the broadcaster may retain for digital transmission and which channel must be surrendered.

IV. The FCC Should Commence A Separate Proceeding To Reallocate Vacant VHF Broadcast Spectrum

In the Third NOI the Commission seeks input on the future use of the reclaimed broadcast spectrum. UTC urges the FCC to commence a separate proceeding to designate the broadcast spectrum to be surrendered at the end of the transition period

as a "spectrum reserve" for new and emerging technologies, including private radio applications. The FCC utilized the spectrum reserve concept as part of its proceeding to reallocate the 1850-2200 MHz band for "emerging technologies," including PCS.[5] The spectrum reserve mechanism will enable the Commission to provide necessary spectrum for private and other emerging technologies as they develop, without experiencing the attendant delays of attempting to identify and clear new spectrum to accommodate technologies that have already been developed.

The creation of a spectrum reserve would recognize that there is a vital long-term need for a reserve of private radio spectrum to meet anticipated requirements in private mobile and wireless data communications. This need was recently documented by the National Telecommunications and Information Administration (NTIA) in its report on *Land Mobile Spectrum Planning Options*.[6] In this report, NTIA concluded that a total of 204 MHz will be needed for land mobile operations within the next 10 years, and of this amount, 50 MHz was identified for public safety/industrial uses. Significantly, the NTIA report specifically recognizes the use of recovered broadcast spectrum as a likely source for this additional spectrum.

The utility industry currently has over 43,000 private land mobile transmitters representing an investment of over $4.3 billion. It is anticipated that the utilities' demand for private land mobile radio spectrum will continue to increase over the next ten to

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[5] First R&O, ET Docket No. 92-9, FCC 92-437, released October 16, 1992.
[6] Land Mobile Spectrum Planning Options, NTIA, released October 19, 1995.

twenty years. Moreover, utilities predict a dramatic increase in the need for mobile data applications in the future.

Unfortunately, the limited spectrum that is currently allocated for these and other vital private land mobile communications services is extremely congested in most of the major urban areas of the country. Moreover, the demand for new private land mobile radio (PLMR) licenses shows no signs of abating. According to the FCC's Annual Reports the number of licensed PLMR radio stations has increased over 400 percent since 1968, and has increased at a rate of 10 percent annually over the last five years.

UTC is well aware of the Commission's on-going proceeding to "refarm" the PLMR spectrum to make more effective and efficient use of the bands below 470 MHz through the use of new narrowband technologies and innovative licensing schemes.[11] UTC applauds the Commission's initiative and has been an active participant in that proceeding. However, refarming of the PLMR spectrum below 470 MHz will, at best, only result in modest improvements in overall PLMR congestion, and if PLMR use continues to grow as expected, these gains will quickly be eviscerated. Therefore, it is imperative that additional spectrum be made available for use by the private land mobile radio community.

A new allocation of spectrum for PLMR use will also facilitate the development and implementation of new and advanced technologies without disrupting the existing

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[11] Notice of Proposed Rulemaking, PR Docket No. 92-235, FCC 92-469, released November 6, 1992.

land mobile operations of those entities that are unable to make a wholesale conversion to more spectrum efficient technologies. Utility companies and other PLMR users are eager to implement mobile systems with advanced technologies, enhanced network capabilities, and greater overall spectrum efficiency.

In addition to mobile communications, there is currently a large push in the utility industry for new and emerging wireless data and distribution automation applications. Defined broadly, distribution automation is a system that permits a utility to remotely monitor, coordinate, and operate distribution (and transmission) components from centralized locations.

Unfortunately, the existing radio frequencies available to utilities for licensing radio systems for their internal purposes such as distribution automation are extremely congested, and spectrum for new or expanding systems is nearly exhausted. A designation of the broadcast reversion spectrum as a reserve for future private land mobile and wireless data communications would be an ideal solution to meeting the anticipated spectrum needs of the utility industry and other "core" public safety/public service private users.

A designation of the VHF reversion spectrum as a private radio spectrum reserve would also speed the implementation of ATV, since it would force consumers and manufacturers of television receivers to recognize the definite nature of the conversion deadline. Further, as in ET Docket No. 92-9, the Commission could allow new private

radio entrants to negotiate with incumbent VHF broadcasters regarding early entrance to the band in return for compensation to fund the broadcasters' conversion to ATV.

V. Conclusion

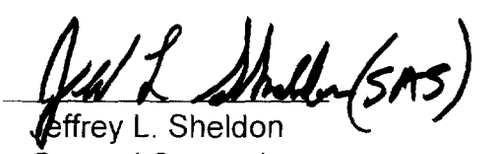
The FCC should require all broadcasters to relinquish their transition broadcast channels on the earlier of a date certain or the attainment of an objective benchmark of digital penetration, such as the availability and use of digital receivers in 2/3 of US households or the year 2005. To promote the deployment of suitable receivers and minimize impact on consumers, the Commission should require that all analog television receiving equipment be capable of digital reception as well.

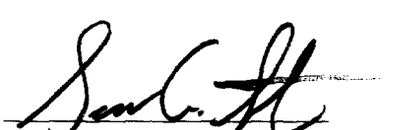
The Commission should commence a separate proceeding to reallocate the broadcast reversion spectrum. Specifically, the FCC should designate the broadcast reversion spectrum as a "private radio spectrum reserve" to accommodate anticipated private land mobile radio and private wireless data communications requirements of the public safety and public service community.

WHEREFORE, THE PREMISES CONSIDERED, UTC respectfully requests the Federal Communications Commission to take action consistent with the views expressed herein.

Respectfully submitted,

UTC

By: 
Jeffrey L. Sheldon
General Counsel

By: 
Sean A. Stokes
Senior Staff Attorney

UTC, The Telecommunications
Association
1140 Connecticut Ave., N.W.
Suite 1140
Washington, D.C. 20036

(202) 872-0030

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